Medical Coverage Policy | Laparoscopic and Percutaneous Techniques for the Myolysis of Uterine Fibroids



EFFECTIVE DATE: 01 | 01 | 2017 **POLICY LAST UPDATED:** 11 | 17 | 2021

OVERVIEW

Various minimally invasive treatments for uterine fibroids have been proposed as alternatives to surgery. Among these approaches are laparoscopic and percutaneous techniques to induce myolysis, which includes radiofrequency volumetric thermal ablation (RFVTA), laser and bipolar needles, cryomyolysis, and magnetic resonance imaging (MRI)-guided laser ablation.

MEDICAL CRITERIA

Not applicable.

PRIOR AUTHORIZATION

Not applicable.

POLICY STATEMENT

Medicare Advantage Plans Advantage Plans

Laparoscopic and percutaneous techniques of myolysis as a treatment of uterine fibroids are considered not covered as there is insufficient peer-reviewed scientific literature that demonstrates that the procedure/service is effective.

Commercial Products

Laparoscopic and percutaneous techniques of myolysis as a treatment of uterine fibroids are considered not medically necessary as there is insufficient peer-reviewed scientific literature that demonstrates that the procedure/service is effective.

COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable not medically necessary/not covered benefits/coverage.

BACKGROUND

Uterine fibroids are among the most common conditions affecting women in their reproductive years; symptoms include menorrhagia, pelvic pressure, or pain. Surgery, including hysterectomy and various myomectomy procedures, is considered the criterion standard treatment for symptom resolution. However, there is the potential for surgical complications and, in the case of hysterectomy, the uterus is not preserved. In addition, for multiple uterine fibroids, myomectomy can be a time-consuming procedure.

There has been long-standing research interest in developing minimally invasive alternatives for treating uterine fibroids, including procedures that retain the uterus and allow for future childbearing. Treatment options include uterine artery embolization and the transcutaneous procedure MRI-guided focused ultrasound therapy. Various techniques to induce myolysis have also been studied including Nd:YAG lasers, bipolar electrodes, cryomyolysis, and radiofrequency ablation. With these techniques, an energy source is used to create areas of necrosis within uterine fibroids, reducing their volume and thus relieving symptoms. Early methods involved multiple insertions of probes into the fibroid, performed without imaging guidance. There were concerns about serosal injury and abdominopelvic adhesions with these techniques, possibly due to the

multiple passes through the serosa needed to treat a single fibroid. Newer systems using radiofrequency energy do not require repetitive insertions of needle electrodes.

Ultrasonography is used laparoscopically to determine the size and location of fibroids, to guide the probe, and to ensure the probe is in the correct location so that optimal energy is applied to the fibroid. Percutaneous approaches using MRI guidance have also been reported.

Randomized controlled trials comparing MRI-guided laser ablation to alternative treatments for uterine fibroids are needed to adequately evaluate the safety and efficacy of this technology. The evidence is insufficient to determine the effects of the technology on health outcomes.

CODING

The following CPT code(s) is considered not covered for Medicare Advantage Plans and not medically necessary for Commercial Products:

58674 Laparoscopy, surgical, ablation of uterine fibroid(s) including intraoperative ultrasound guidance and monitoring, radiofrequency.

RELATED POLICIES

None

PUBLISHED

Provider Update, January 2022 Provider Update, November 2020 Provider Update, August 2019 Provider Update, November 2018 Provider Update, March 2017

REFERENCES

- 1. Jones S, O'Donovan P, Toub D. Radiofrequency ablation for treatment of symptomatic uterine fibroids. Obstet Gynecol Int. 2012;2012:194839. PMID 21961009
- Brucker SY, Hahn M, Kraemer D, et al. Laparoscopic radiofrequency volumetric thermal ablation of fibroids versus laparoscopic myomectomy. Int J Gynaecol Obstet. Jun 2014;125(3):261-265. PMID 24698202
- 3. Hahn M, Brucker S, Kraemer D, et al. Radiofrequency volumetric thermal ablation of fibroids and laparoscopic myomectomy: long-term follow-up from a randomized trial. Geburtshilfe Frauenheilkd. May 2015;75(5):442-449. PMID 26097247
- 4. Kramer B, Hahn M, Taran FA, et al. Interim analysis of a randomized controlled trial comparing laparoscopic radiofrequency volumetric thermal ablation of uterine fibroids with laparoscopic myomectomy. Int J Gynaecol Obstet. May 2016;133(2):206-211. PMID 26892690
- 5. Chudnoff SG, Berman JM, Levine DJ, et al. Outpatient procedure for the treatment and relief of symptomatic uterine myomas. Obstet Gynecol. May 2013;121(5):1075-1082. PMID 23635746
- 6. Berman JM, Guido RS, Garza Leal JG, et al. Three-year outcome of the Halt trial: a prospective analysis of radiofrequency volumetric thermal ablation of myomas. J Minim Invasive Gynecol. Sep-Oct 2014;21(5):767-774. PMID 24613404
- 7. Yin G, Chen M, Yang S, et al. Treatment of uterine myomas by radiofrequency thermal ablation: a 10-year retrospective cohort study. Reprod Sci. May 2015;22(5):609-614. PMID 25355802
- 8. Goldfarb HA. Bipolar laparoscopic needles for myoma coagulation. J Am Assoc Gynecol Laparosc. Feb 1995;2(2):175-179. PMID 9050553
- 9. Goldfarb HA. Nd:YAG laser laparoscopic coagulation of symptomatic myomas. J Reprod Med. Jul 1992;37(7):636-638. PMID 1387912
- 10. Nisolle M, Smets M, Malvaux V, et al. Laparoscopic myolysis with the Nd:YAG laser. J Gynecol Surg. Summer 1993;9(2):95-99. PMID 10171973

- 11. Donnez J, Squifflet J, Polet R, et al. Laparoscopic myolysis. Hum Reprod Update. Nov-Dec 2000;6(6):609-613. PMID 11129695
- 12. Phillips DR, Nathanson HG, Milim SJ, et al. Laparoscopic leiomyoma coagulation. J Am Assoc Gynecol Laparosc. Aug 1996;3(4, Supplement):S39. PMID 9074213
- 13. Zreik TG, Rutherford TJ, Palter SF, et al. Cryomyolysis, a new procedure for the conservative treatment of uterine fibroids. J Am Assoc Gynecol Laparosc. Feb 1998;5(1):33-38. PMID 9454874
- Zupi E, Piredda A, Marconi D, et al. Directed laparoscopic cryomyolysis: a possible alternative to myomectomy and/or hysterectomy for symptomatic leiomyomas. Am J Obstet Gynecol. Mar 2004;190(3):639-643. PMID 15041993
- 15. Zupi E, Marconi D, Sbracia M, et al. Directed laparoscopic cryomyolysis for symptomatic leiomyomata: one-year follow up. J Minim Invasive Gynecol. Jul-Aug 2005;12(4):343-346. PMID 16036195
- Hindley JT, Law PA, Hickey M, et al. Clinical outcomes following percutaneous magnetic resonance image guided laser ablation of symptomatic uterine fibroids. Hum Reprod. Oct 2002;17(10):2737-2741. PMID 12351555
- 17. Vilos GA, Allaire C, Laberge PY, et al. The management of uterine leiomyomas. J Obstet Gynaecol Can. Feb 2015;37(2):157-181. PMID 25767949
- 18. American College of Obstetricians and Gynecologists (ACOG). Alternatives to hysterectomy in the management of leiomyomas. ACOG practice bulletin No. 96. 2008, reaffirmed 2014; http://www.acog.org/-/media/List-of-Titles/PBListOfTitles.pdf. Accessed July 19, 2016.

---- CLICK THE ENVELOPE ICON BELOW TO SUBMIT COMMENTS

This medical policy is made available to you for informational purposes only. It is not a guarantee of payment or a substitute for your medical judgment in the treatment of your patients. Benefits and eligibility are determined by the member's subscriber agreement or member certificate and/or the employer agreement, and those documents will supersede the provisions of this medical policy. For information on member-specific benefits, call the provider call center. If you provide services to a member which are determined to not be medically necessary (or in some cases medically necessary services which are non-covered benefits), you may not charge the member for the services unless you have informed the member and they have agreed in writing in advance to continue with the treatment at their own expense. Please refer to your participation agreement(s) for the applicable provisions. This policy is current at the time of publication; however, medical practices, technology, and knowledge are constantly changing. BCBSRI reserves the right to review and revise this policy for any reason and at any time, with or without notice. Blue Cross & Blue Shield of Rhode Island is an independent licensee of the Blue Cross and Blue Shield Association.